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PRINCIPAL INVESTIGATOR: E. R. Pfefferkorn, Ph.D.

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Gordon Research Center
University of Rhode Island
Kingston, Rhode Island 02281

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SUMMARY: The 1989 Gordon Research Conference on Molecular and Immunological Aspects of Parasitology was held at Colby-Sawyer College, New London, NH, August 7-11, 1989. A large amount of new and exciting data was presented and resulted in long and wide ranging discussions. Many of those attending gained new ideas for their own research.



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ER. Pfeffer
PI Signature

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BODY OF REPORT

The fifth Gordon Research Conference on Molecular and Immunological Aspects of Parasitology was held at Colby-Sawyer College, New London, NH, August 7-11, 1989. The grant from USAMRDC provided travel funds and conference fees for speakers whose presence was essential to the success of the Conference. One scientist from military research was an invited speaker and several other scientists from military research institutes attended. This grant was not used to support the expenses of anyone from military research institutes.

This Gordon Conference proved to be very popular. The organizers were forced to turn down 40 applicants to stay within the limit of 135. Many different topics were discussed. The genetics of hemoflagellates continues to offer surprises. The concept of post-transcriptional editing of mRNA in trypanosomes provoked much discussion even though no one was able to suggest a convincing mechanism. The biosynthesis of protozoan organelles can now be studied in a cell-free system. As a result, important concepts in signal recognition and in the mechanism of protein transport across membranes are being developed on the basis of sound experimental data. Several malariologists from Australia, Sweden, and the USA provided convincing evidence as to the importance of T-cell epitopes in the design of a vaccine. Failure to consider this aspect is probably an important reason for the recent disappointing vaccine trials. The molecular biology of filarial infections has progressed to the point at which we can think rationally about the design of vaccines. The role of eosinophils and of various cytokines in immunity to helminth is becoming clearer. Therapeutic manipulation of cytokine titers may be useful in treating helminth infections. However, chemotherapy will probably continue to play an important role. The possibility of a rational approach to this chemotherapy provoked a spirited discussion with strong advocates of both the affirmative and negative viewpoint. Evidence from the study of glutamate and acetylcholine receptors buttressed the affirmative argument.

In addition to the formal presentations by thirty-five speakers, more than sixty other participants displayed posters that presented a wide array of unpublished data. These posters were the occasion for wide-ranging individual discussions. The importance and scientific population of this Gordon Conference is shown by the large number of parasitologists whose applications to attend could not be accepted. The success of the Conference is reflected in the unanimous vote to have another Conference in two years and in the decision of Gordon Research Center to authorize another conference in 1991.